

California Regional Water Quality Control Board
North Coast Region

Monitoring and Reporting Program No. R1-2011-0020

For

Mr. Lance Anderson and Mr. Don Swanson
(Owners of Miranda Rentals)

at

6734 Avenue of the Giants
Miranda, California

Humboldt County

This Monitoring and Reporting Program (MRP) is issued pursuant to California Water Code Section (CWC) 13267(b) and requires monitoring of treated groundwater and submission of technical reports. Reports are required on a periodic basis detailed in this Order. The objective of monitoring conducted under this monitoring program is to provide the Discharger, the Humboldt County Department of Health and Human Services Division of Environmental Health (HCDEH), and the California Regional Water Quality Control Board, North Coast Region (Regional Water Board) with information concerning extraction and discharge of treated groundwater and from the Dual-Phase Extraction (DPE) system located at 6734 Avenue of the Giants, Miranda, California (Site).

Under the authority of CWC section 13267(b), the Discharger named above is required to comply with the following:

MONITORING

1. Monitoring for the DPE application at the Site contains three components and each component contains several elements. The two components are 1) the startup run which has duration of approximately 10 days and 2) continuous run which will have a duration of multiple months.
2. Ongoing monitoring efforts include collection of groundwater samples for chemical testing of Site-specific constituents of concern (COCs). The COCs are primarily total petroleum hydrocarbons as gasoline (TPHG) and benzene-toluene-ethylbenzene-xylenes (BTEX), and methyl tert butyl ether (MTBE).
3. The startup run has duration of approximately 10 days. During the start up run of DPE operation, extracted and treated groundwater will be stored on-Site in a temporary storage vessel. Discharges to the infiltration gallery will occur only in a batch and after Regional Water Board written concurrence with the discharge after

review of chemical testing results for the COCs shown on Attachment A. Attachment A identifies existing DPE monitoring points, COCs, and frequency of monitoring. In addition, above ground structure monitoring is required as identified in the operation and maintenance manual.

The laboratory test results must not contain detectable concentrations of all COCs at levels equal to or above the standard testing laboratory's reporting limits. The discharge rate from the storage tank into the infiltration gallery shall not exceed 1.5 gallons per minute (GPM) as defined in the permit issued by Mr. Dave Spinosa of the HCDEH. There are three DPE sample ports related to treatment. One is before the granular activated carbon (GAC) canisters, one is in between the GAC canisters, and one is after the GAC canisters but before delivery to the infiltration gallery. The Discharger will collect samples from each sample port to evaluate the effectiveness of the GAC treatment prior to discharge. Regional Water Board staff shall receive written monitoring data and laboratory reports. Regional Water Board staff shall provide written concurrence that discharge(s) to the infiltration gallery is acceptable.

4. The continuous run has duration of multiple months. The continuous run will be through the GAC canisters and directly into the infiltration gallery at a discharge rate not to exceed 1.5 GPM. The frequency and testing of the sample ports will be monthly with direct reporting to Regional Water Board staff and Mr. Bob Stone at HCDEH. Quarterly written reports, containing all related DPE information, will be submitted to Mr. Bob Stone at HCDEH and Regional Water Board staff. Regional Water Board staff shall receive monitoring data. Regional Water Board staff shall provide written concurrence that discharge to the infiltration gallery is acceptable.
5. Monitoring activities will generate Investigation Derived Wastes (IDW). The Dischargers shall continue to manage their IDW in conformance with standards required by HCEHD.

REPORTING

Periodic groundwater monitoring reports shall be prepared under the direct supervision of a California-Licensed Civil Engineer or Professional Geologist with demonstrated skills in preparing such reports. The reports shall continue to be provided to Mr. Bob Stone of HCDEH and during the duration of DPE shall also be provided to Regional Water Board staff.

Notify the Regional Water Board Executive Officer and Mr. Bob Stone at HCDEH within 24 hours of any measurement or any observation at the Site that may indicate unanticipated consequences requiring immediate attention to the DPE system.

All project data and reports shall be submitted in hard copy format and also electronically submitted in the proper format to the State Water Resources Control Board's Geotracker database. Geotracker submittals are required as stated in California Code of Regulations Title 23, Division 3, Chapter 30.

Monitoring reports, including field data and laboratory data, shall be submitted to the Mr. Bob Stone at HCDEH and this agency in accordance with the following schedule:

Reporting Period(s)

Due Dates

Startup Run
(approx. 10 days)

beginning March 18, 2011
for approx. 10 days

Continuous Run
(monthly for multiple months)

beginning March 28, 2011
until treatment is complete

Ordered by _____
Catherine Kuhlman
Executive Officer

March 21, 2011

ATTACHMENT A

DPE Water-Sampling Locations, Constituents of Concern (COCs), Field Monitoring Parameters, and Sampling Frequency.

DPE Water-Sampling Locations	COCs TPHG, BTEX, MTBE	Field Parameters	Sampling Frequency
Infiltration Gallery Piezometer		X X	During discharge for startup run monthly for continuous run
Infiltration Gallery Piezometer		X X	During discharge for startup run monthly for continuous run
Pre-GAC	X X	X X	Every other day for startup run monthly for continuous run
Pre-GAC	X X	X X	Every other day for startup run monthly for continuous run
Post-GAC 1	X X	X X	Every other day for startup run monthly for continuous run
Post-GAC 1	X X	X X	Every other day for startup run monthly for continuous run
Post-GAC 2 (Discharge Port)	X X	X X	Every other day for startup run monthly for continuous run
Post-GAC 2 (Discharge Port)	X X	X X	Every other day for startup run monthly for continuous run

Notes: Field parameters include depth to water in the infiltration gallery piezometers, visual and olfactory observations (such as water clarity, odors, etc.), system leakage, Operation and Maintenance Manual requirements, etc.